(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 4 November 2004 (04.11.2004)

PCT

(10) International Publication Number WO 2004/095763 A3

(51) International Patent Classification7:

H04B 1/38

(21) International Application Number:

PCT/US2004/007708

(22) International Filing Date: 6 April 2004 (06.04.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/460,571

7 April 2003 (07.04.2003) US

(71) Applicant (for all designated States except US): WIDEFI, INC. [US/US]; 1333 Gateway Drive, Suite 1012, Melbourne, FL 32901 (US).

(72) Inventors; and

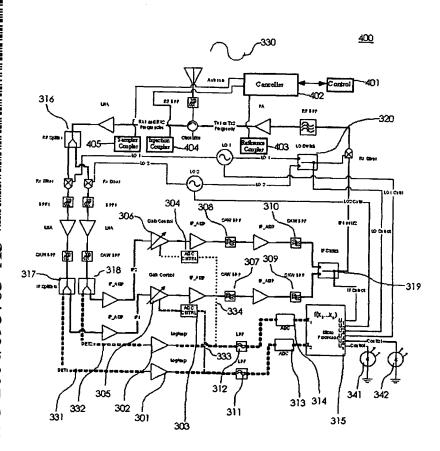
(75) Inventors/Applicants (for US only): PROCTOR, James, A., Jr. [US/US]; WiDeFi, Inc., 1333 Gateway Drive, Suite

1012, Melbourne, FL 32901 (US). GAINEY, Kenneth, M. [US/US]; WiDeFi, Inc., 1333 Gateway Drive, Suite 1012, Melbourne, FL 32901 (US).

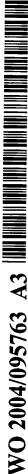
- (74) Agents: POSZ, David, G. et al.; Posz & Bethards, PLC, 11250 Roger Bacon Drive, Suite 10, Reston, VA 20190 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH,

[Continued on next page]

(54) Title: TRANSMISSION CANCELLER FOR WIRELESS LOCAL AREA NETWORK REPEATER



(57) Abstract: A frequency translating repeater (200) for use in a wireless local area network includes a cancellation unit. Canceller (402) is controlled by control (401) to provide an injection signal for canceling leakage in a receive signal path. Reference coupler (403) provides a reference signal from the transmit signal, injection coupler (404) injects a correction signal, and sample coupler (405) provides a sample for feedback. A processor (510) receives the sample signal through a detector (415). Although the present invention is intended for a frequency translating repeater, it has broad applications in radio transceivers in general. specific application is with frequency division duplex (FDD) handsets or base stations utilizing CDMA technologies such as W-CDMA and IS-2000 or 1XEV-DV/DO.



WO 2004/095763 A3



GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 27 January 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.